

1323344). Martinique: A. Duss 1965 (W--849741); R. F. Finch 28 (Mi); Hahn 899 (Ca--332487, W--57688), s.n. [1870] (F--367191); Kohaut s.n. [Sieber Fl. Mart. 158] (E--118980); Stehlé & Stehlé 4474 (W--2453688), 5937 (W--2453685), 6141 (W--2453641), 5875 (W--2453687). St. Lucia: J. S. Beard 502 (Ca--797552). LEEWARD ISLANDS: Dominica: Stehlé & Stehlé 6413 (W--2453686). Guadeloupe: A. Duss 2384 (W--849815); H. Stehlé 2759 (W--2453706); Webster, Ellis, & Miller 9079 (Mi). CULTIVATED: Trinidad: W. E. Broadway s.n. [Trin. Bot. Gard. Herb. 1376] (W--1323342); Trin. Bot. Gard. Herb. 1949 (W--1323343); Warming 185 (W--1234846).

CORNUTIA PYRAMIDATA var. ISTHMICA Moldenke

Additional bibliography: Moldenke, *Phytologia* 7: 398--399. 1961.

Emended citations: MEXICO: Campeche: C. L. Lundell 852 (Ca--486942--isotype, E--1017100--isotype, F--700445--isotype, W--1494712--isotype). Vera Cruz: C. D. Mell s.n. [Minatitlan] (W--1406477). GUATEMALA: El Petén: Cook & Martin 128 (W--1084608); C. L. Lundell 3450 (F--685306). BRITISH HONDURAS: C. L. Lundell 41 (F--598950, W--149099), 104 (F--598051), 433 (E--980201, F--712045, W--1472698); Winzerling III.20 [tree no. 20] (F--573771).

CORNUTIA THYRSOIDEA Banks & Moldenke

Additional synonymy: Cornutia thyrsoides Moldenke, in herb.

Additional bibliography: Moldenke, *Phytologia* 7: 399 (1961) and 14: 424. 1967.

Proctor describes this plant as a small bushy tree, 5 m. tall, with violet flowers in May, growing along roadsides at an altitude of 2300--2500 feet. It was previously misidentified and distributed in herbaria as C. jamaicensis Moldenke.

Additional & emended citations: JAMAICA: N. L. Britton 3766 (W--656325); W. Harris 5731 (F--145496), 6349 (F--145395), 11066 (W--699858); Proctor 19689 (N, W--2286942).

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 ADDITIONAL NOTES ON THE GENUS CITHAREXYLUM. IV

Harold N. Moldenke

CITHAREXYLUM B. Juss.

Additional synonymy: Citharexyllum Bocq., *Rev. Verbenac.* 128, sphalm. 1863.

Additional & emended bibliography: Bocq., *Adansonia* 2: 85, 88, 89, 96, 105, 109, 117, 118, 123, 126--128, 130, 131, 135, 136, 141, 142, 145--147, 152, 154, 157, & 160 (1862) and 3: 180, 182--185, 194, 197, & 222--224, pl. 13. 1863; Bocq., *Rev. Verbenac.* 85,

88, 96, 105, 109, 117, 118, 123, 126--128, 130, 135, 136, 141, 142, 145--147, 152, 154, 157, 160, 178, 180, 182--185, 194, 197, & 222--224, pl. 13. 1863; A. S. Hitchc., Ann. Rep. Mo. Bot. Gard. 4: 117. 1893; Achart, Quinz. Cent. Pl. Ind. 145. 1905; C. K. Schneid., Illust. Handb. Laubholz. 590. 1911; L. H. Bailey, Man. Cult. Pl., ed. 1, pr. 1, 628, 631, & 807 (1924) and pr. 2, 628, 631, & 807. 1925; Sandw., Kew Bull. Misc. Inf. 1930: 210--211 & 214. 1930; Sampaio, Bol. Mus. Nac. Rio Jan. 13: 267. 1937; Sandw., Kew Bull. Misc. Inf. 1938: 373. 1938; L. H. Bailey, Man. Cult. Pl., ed. 1, pr. 3, 628, 631, & 807 (1938) and pr. 4, 628, 631, & 807. 1944; Le Cointe, Amaz. Bras. III Arv. & Pl. Uteis, ed. 2, 376 & 499. 1947; Chittenden, Roy. Hort. Soc. Dict. Gard. 1: 493. 1951; Asprey & Robbins, Ecol. Monog. 23: 374, 382, 383, 400, & 411. 1953; Moldenke, Phytologia 5: 24 & 95 (1954) and 5: 405. 1956; Moldenke, Inform. Mold. Set 51 Spec. 2. 1956; Moldenke, Phytologia 5: 509. 1957; H. N., A. L., & A. R. Moldenke, 1957 Christ. Bless. [3]. 1957; Moldenke, Am. Midl. Nat. 59: 334--336. 1958; Moldenke, Phytologia 6: 448--505 & 509. 1959; J. Hutchinson, Fam. Flow. Pl., ed. 2, 2: 395. 1959; Anon., Kew Bull. Gen. Index 1929--1956, 76. 1959; Runner, Rep. G. W. Groff Coll. 362. 1961; Gupta & Mar-lange, Trav. Sect. Scient. Inst. Franç. Pond. 3 (1): 78--79 & 127. 1961; Srinivasan & Agarwal, Bull. Bot. Surv. India 5: 80. 1963; E. E. Lord, Shrubs & Trees Austral. Gard., rev. ed., 66. 1964; A. D. Hawkes, Guide Pl. Everglades Nat. Park 43, 46, & 47. 1965; Liogier, Rhodora 67: 350. 1965; Sen & Naskar, Bull. Bot. Surv. India 7: 40. 1965; Anon., Gen. Costa Ric. Phan. 10. 1966; Fournier, Imp. Tree Fam. Costa Ric. 13. 1966; Moldenke, Résumé Suppl. 14: 1, 2, & 8. 1966; A. Maria, Pl. Valle Cochabamb. 2: 41. 1966; Jiménez, Supl. Cat. Fl. Doming. 1: 210--212 & 273. 1966; J. Gómez, Biota 6: 103, 107, 114, & 119. 1966; Moldenke, Phytologia 13: 310, 327, 401, 508, & 509 (1966) and 14: 216. 1967.

Lord (1964) avers that the common name, fiddlewood, is taken from the French, fidele, referring to the "reliability" of the timber and therefore with NO reference to violins!

#### CITHAREXYLUM AFFINE D. Don

Additional bibliography: Moldenke, Inform. Mold. Set 51 Spec. 2. 1956; Moldenke, Phytologia 13: 278--279. 1966.

Additional citations: MEXICO: México: G. L. Fisher s.n. [Amecameca, July 26, 1924] (Ws).

#### CITHAREXYLUM AMAZONICUM Moldenke

Additional bibliography: Le Cointe, Amaz. Bras. III Arv. & Pl. Uteis, ed. 2, 376. 1947; Moldenke, Phytologia 13: 279--280. 1966.

Le Cointe (1947) records the vernacular names "pau-de-guitarra" and "pau-de-viola", and says of the wood "para marcenaria, caixoteira e fabricação de instrumentos de cordas."

#### CITHAREXYLUM ARGUTEDENTATUM Moldenke

Additional bibliography: Moldenke, Phytologia 13: 280 & 303.

1966.

## CITHAREXYLUM BRACHYANTHUM (A. Gray) A. Gray

Additional bibliography: Moldenke, *Phytologia* 13: 310. 1966; Moldenke, *Résumé Suppl.* 14: 8. 1966.

Additional citations: MEXICO: San Luis Potosí: J. Rzedowski 7636 (Du--510645). Zacatecas: J. Rzedowski 9323 (Mi).

## CITHAREXYLUM CAUDATUM L.

Additional bibliography: Asprey & Robbins, *Ecol. Monog.* 23: 400 & 411. 1953; Moldenke, *Am. Midl. Nat.* 59: 334. 1958; Moldenke, *Phytologia* 13: 282--284, 292, 293, 312, & 314. 1966.

Recent collectors in Jamaica describe this species there as a tall shrub, 10--12 feet tall, or a tree, 6.9--10 meters tall, with odoriferous flowers, and the fruit green, orange-brown at the apex [in July] or orange [in August], the calyx "green with orangish margins", common on brushy limestone hillsides or on wooded limestone hills, at altitudes of 2100--4000 feet. The flowers on Yuncker 17467 are described as "white" and on Crosby, Hespenheide, & Anderson 692 as "white tinged with orangish in bud". Ekman 13902 represents a very small-leaved form of the species and may be worthy of varietal rank, as suggested by O. E. Schulz. My son, Andrew R. Moldenke, found the species growing in a mangrove swamp in Panama.

Thorne 33366 was collected in a patch of mixed woods with Aca-  
cia koa, Metrosideros collina, Hibiscus arnottianus, Cordyline  
terminalis, Antidesmia platyphylla, etc., and is described as  
having been taken from "small introduced naturalized trees with  
white flowers". Its leaves are not at all typical of C. caudatum,  
being too sharply acute, and have much the aspect of C. donnell-  
smithii Greenm. These Hawaiian specimens should be re-studied.

The Webster & Wilson 5069, Webster & Proctor 5414, and Webster,  
Proctor, & Powell 5358, distributed as C. caudatum, seem to be  
C. perkinsi Moldenke -- they have very large broad leaves that are  
somewhat rough-reticulate above. The very abundant fruit on the  
fruiting racemes, however, seems to cast doubt on the hybrid na-  
ture of this taxon. Perhaps it represents a natural variety, al-  
though its foliar characters seem to be intermediate.

The S. A. Graham 281, distributed as C. caudatum, is actually  
C. donnell-smithii Greenm.

Additional citations: PANAMA: Colón: A. R. Moldenke 1229 (Ac).  
CUBA: Havana: Baker & Abarca 4322 (W--1584512). Las Villas: Ekman  
13902 (Mi). JAMAICA: Crosby, Hespenheide, & Anderson 692 (Mi); G.  
R. Proctor 26629 (Mi); Yuncker 17467 (Mi). POLYNESIA: HAWAIIAN  
ISLANDS: Oahu: R. F. Thorne 33366 (Mi).

## CITHAREXYLUM DAWEI Moldenke

Additional bibliography: Moldenke, *Phytologia* 13: 284 & 316.

1966.

## CITHAREXYLUM DECORUM Moldenke

Additional bibliography: Moldenke, *Phytologia* 13: 284--285, 290, & 302. 1966.

## CITHAREXYLUM DISCOLOR Turcz.

Additional bibliography: Moldenke, *Phytologia* 13: 285. 1966; Jiménez, *Supl. Cat. Fl. Doming.* 1: 210. 1966.

## CITHAREXYLUM DONNELL-SMITHII Greenm.

Additional bibliography: Moldenke, *Phytologia* 13: 285--286. 1966.

Recent collectors describe this plant as a slender shrub, 2 m. tall, or a tree, 20 m. tall, with fruits amber-colored or "en cadenas naranjadas, vistosas", growing on slopes with *Quercus*, in dry arroyo beds, on steep heavily wooded streambanks, and along cleared paths in mixed evergreen forests, flowering in October, fruiting in February and December, at 7000 feet altitude, and called "chorrito". The corollas are described as "white" on Allen & Armour 6798 and on Breedlove & Raven 13743, and as "pale-yellow" on S. S. White 5191.

Additional citations: MEXICO: Chiapas: Breedlove 7848 (Mi); Breedlove & Raven 13743 (Mi). GUATEMALA: Guatemala: S. S. White 5191 (Mi). EL SALVADOR: Santa Ana: Allen & Armour 6798 (Du--466537). PANAMA: Chiriquí: S. A. Graham 281 (Mi).

## CITHAREXYLUM ELLIPTICUM Sessé &amp; Moc.

Additional bibliography: Moldenke, *Phytologia* 13: 286. 1966.  
Additional citations: MEXICO: Vera Cruz: Sauer & Gade 3082 (Ws).

## CITHAREXYLUM FLABELLIFOLIUM S. Wats.

Additional synonymy: Citharoxylon flabellifolium S. Wats., in herb.

Additional bibliography: Moldenke, *Phytologia* 13: 310. 1966.  
Recent collectors describe this plant as a shrub, 1--5 m. tall, with few flowers in February, fruiting in April, called "colorado", growing on hillsides, silty flats, and gentle slopes, as well as along roadsides, at 150 m. altitude. The flowers are described as "deep-lavender, the upper lobes darkest, whitish in throat, slightly deflexed" on Wiggins & Ernst 514, "purplish-lavender with white to yellowish throat" on I. L. Wiggins 15392, and "lavender, the margins of the lobes crinkly" on I. L. Wiggins 15329.

Additional citations: MEXICO: Baja California: D. M. Porter 402 (Du--451971); I. L. Wiggins 11499a (Du--321783), 15329 (Du--453242), 15392 (Du--453231); Wiggins & Ernst 514 (Du--507000). MONSERRATE ISLAND: R. V. Moran 3886 (Du--361515).

## CITHAREXYLUM FLEXUOSUM (Ruiz &amp; Pav.) D. Don

Additional bibliography: J. Gómez, Biota 6: 103, 107, 114, & 119. 1966; Moldenke, Phytologia 13: 286--287. 1966.

Gómez (1966) records the vernacular names "estrella" and "huacrampi" for this plant, and found it growing at 2400--3000 meters altitude in Ancash, Peru.

## CITHAREXYLUM FRUTICOSUM L.

Additional synonymy: Citharexylum cinereum Alm. apud Anon., Kew Bull. Gen. Index 1929-1956, 76, sphalm. 1959.

Additional bibliography: Sandw., Kew Bull. Misc. Inf. 1930: 210--211. 1930; Sampaio, Bol. Mus. Nac. Rio Jan. 13: 267. 1937; Asprey & Robbins, Ecol. Monog. 23: 374, 382, 383, & 411. 1953; Moldenke, Am. Midl. Nat. 59: 334 & 335. 1958; Anon., Kew Bull. Gen. Index 1929-1956, 76. 1959; E. E. Lord, Shrubs & Trees Austral. Gard., rev. ed., 66. 1964; A. D. Hawkes, Guide Pl. Everglades Nat. Park 43, 46, & 47. 1965; Liogier, Rhodora 67: 350. 1965; Sen & Naskar, Bull. Bot. Surv. India 7: 40. 1965; Moldenke, Phytologia 13: 283, 287--290, & 314. 1966; Moldenke, Résumé Suppl. 14: 2 & 8. 1966; Jiménez, Supl. Cat. Fl. Doming. 1: 210 & 273. 1966.

Yuncker found this species growing on dry rocky slopes from 50 to 2500 feet altitude in Jamaica, and reports the common name "yellow fiddlewood". The Ekman 8638, distributed as C. fruticosum, is actually var. subvillosum Moldenke.

Sandwith (1930) says, in speaking of the genus Schlegelia: "It is interesting to note how this genus in the tribe Crescentieae of Bignoniaceae, which is certainly unlike its congeners, has a facies so strongly recalling that of the well-known Citharexylum in Verbenaceae that it has repeatedly provided a pitfall for botanists from the time of Linnaeus down to the present century. Thus the type specimens of Citharexylum cinereum L., 'parasiticum scandens' of the Plantae surinamenses p. 10, no. 78 in Amoen. Acad. viii. p. 258 (1775), are the common Schlegelia of the section Euschlegelia of the Guiana forests, which was originally described and figured by Aublet as Besleria violacea, and later described by Miquel as S. lilacina and S. elongata, the latter being considered conspecific with the former by subsequent writers such as Seemann, K. Schumann and Pulle. This was first reported by Seemann in a paper on the Crescentiaceae in Trans. Linn. Soc. xxiii. 15 (1862), in which he treated Miquel's Schlegelia as a section of the genus Tanaecium; it was quoted by K. Schumann in Martius' Flora Brasiliensis vol. viii. pars ii. p. 401 (1896-7); and the identification has more recently (1923) been verified by Mr. N. E. Brown, who matches the specimens exactly with Jenman 4318 from the Lower Demerara River, British Guiana. Fortunately no change of name is necessitated by this mistake of Linnaeus, since the name Citharexylum cinereum had already been applied to another species. This earlier Citharexylum cinereum L. of Sp. Pl.

ed. ii. 872 (1763), as can be seen from the description and the references to Patrick Browne, Plumier and Plukenet, is a true Citharexylum, conspecific with C. fruticosum L. of Systema Naturae ed. x. 1115 (1759); and C. cinereum L. (1763) is accordingly sunk in synonymy under C. fruticosum L. by O. E. Schulz in his conspectus of the West Indian species of Citharexylum in Urban, Symb. Antill. vi. 61 (1909)."

Lord (1964) places C. subserratum Sw., C. cinereum L., and C. pentandrum Vent. in synonymy here, as well as the C. quadrangulare of Grisebach. Sampaio (1937) records the vernacular name "pau de viola" for what he calls C. cinereum L. Wagner describes the plant as a tree, 25 feet tall, the bark gray-tan, and the leaves stiff, light-green, much lighter beneath, the petioles orange, and the petals white. The Kimber 524, 849, 1895, & 2035, R. J. Wagner 578, and Webster & Miller 9829, distributed as C. fruticosum, are all actually C. spinosum L.

Additional citations: JAMAICA: Yuncker 17842 (Mi), 18054 (Mi). PUERTO RICO: R. J. Wagner 616 (S).

CITHAREXYLUM FRUTICOSUM f. BAHAMENSE (Millsp.) Moldenke

Additional bibliography: Moldenke, Phytologia 13: 288--290. 1966; Moldenke, Résumé Suppl. 14: 2 & 8. 1966.

CITHAREXYLUM FRUTICOSUM var. BRITTONII Moldenke

Additional bibliography: Moldenke, Phytologia 13: 289-290 & 314. 1966.

CITHAREXYLUM FRUTICOSUM var. SMALLII Moldenke

Additional bibliography: Moldenke, Phytologia 13: 289 & 290. 1966.

CITHAREXYLUM FRUTICOSUM var. SUBSERRATUM (Sw.) Moldenke

Additional synonymy: Citharexylum subserratum Swelt. ex Gupta & Marlange, Trav. Sect. Scient. Inst. Franç. Pond. 3 (1): 78, sphalm. 1961.

Additional bibliography: Gupta & Marlange, Trav. Sect. Scient. Inst. Franç. Pond. 3 (1): 78--79 & 127. 1961; Sen & Naskar, Bull. Bot. Surv. India 7: 40. 1965; Moldenke, Phytologia 13: 290. 1966; Jiménez, Supl. Cat. Fl. Doming. 1: 210--211. 1966.

This plant is recorded from India by Gupta & Marlange (1961), while Sen & Naskar (1965) tell us that it exists in cultivation there, but I have seen no material of it from India, either wild or cultivated. They record the vernacular name "kittāraimaram" for it there.

CITHAREXYLUM FRUTICOSUM var. SUBVILLOSUM Moldenke

Additional synonymy: Citharexylum fruticosum var. pentadrum Duchass. ex Jiménez, Supl. Cat. Fl. Doming. 1: 211, sphalm. in syn. 1966.

Additional bibliography: Liogier, Rhodora 67: 350. 1965; Mol-

denke, *Phytologia* 13: 290. 1966; Jiménez, *Supl. Cat. Fl. Doming.* 1: 211. 1966.

Additional citations: CUBA: Oriente: Ekman 8638 (Mi).

CITHAREXYLUM FRUTICOSUM var. VILLOSUM (Jacq.) O. E. Schulz

Additional bibliography: Bocq., *Adansonia* 2: 96 & 118 (1862) and 3: 223, pl. 13. 1863; Bocq., *Rev. Verbenac.* 96, 118, & 223, pl. 13. 1863; A. S. Hitchc., *Ann. Rep. Mo. Bot. Gard.* 4: 117. 1893; Liogier, *Rhodora* 67: 350. 1965; Moldenke, *Phytologia* 13: 289 & 290. 1966.

Additional citations: CUBA: Oriente: Ekman 7732 (Mi).

CITHAREXYLUM HEXANGULARE Greenm.

Additional bibliography: Moldenke, *Phytologia* 13: 291--292 & 303. 1966.

McVaugh found this as an occasional tree along lumber roads on steep slopes in humid forests of Abies, Quercus and other deciduous trees, with Pinus dominant on the ridges and summits, at altitudes of 2000 to 2250 meters. The leaves on his no. 23162 are exceptionally large and broad, being 16 cm. long and 7.5 cm. wide.

Additional citations: MEXICO: Jalisco: R. McVaugh 23162 (Mi).

CITHAREXYLUM HIDALGENSE Moldenke

Additional bibliography: Moldenke, *Phytologia* 13: 292 & 301. 1966.

The corollas on Moore 2631 are described as "white or lavender".

Additional citations: MEXICO: Hidalgo: H. E. Moore Jr. 2631 (Ws); Pringle 8969 (Ws--isotype).

CITHAREXYLUM HINTONI Moldenke

Additional bibliography: Moldenke, *Inform. Mold. Set 51 Spec.* 2. 1956; Moldenke, *Phytologia* 13: 292. 1966.

CITHAREXYLUM HIRTELLUM Standl.

Additional bibliography: Moldenke, *Phytologia* 13: 310. 1966; Moldenke, *Résumé Suppl.* 14: 1. 1966.

x CITHAREXYLUM HYBRIDUM Moldenke

Additional bibliography: Moldenke, *Am. Midl. Nat.* 59: 335. 1958; Moldenke, *Phytologia* 13: 292--293. 1966.

CITHAREXYLUM ILICIFOLIUM H.B.K.

Additional & emended bibliography: Bocq., *Adansonia* 3: [Rev. *Verbenac.*] 223. 1863; L. H. Bailey, *Man. Cult. Pl.*, ed. 1, pr. 1, 631 & 807 (1924), pr. 2, 631 & 807 (1925), pr. 3, 631 & 807 (1938), and pr. 4, 631 & 807. 1944; Chittenden, *Roy. Hort. Soc. Dict. Gard.* 1: 493. 1951; Moldenke, *Phytologia* 13: 293. 1966.

The M. Bang 1917, distributed as C. ilicifolium, is actually the type collection of C. punctatum Greenm.